

## PLANNING TREATMENT

Once the cause of your hematuria is determined, you and your doctor can plan a course of action. If any treatment is needed, it will depend on the cause of the bleeding. Be sure to keep follow-up visits so your condition can be monitored.

### Common Causes and Their Treatments

- A **small stone** in the bladder or urethra may be removed with a special scope. Larger stones or kidney stones may be broken up using sound waves or a laser. This process is called **lithotripsy**.
- An **enlarged prostate gland** may be treated with medications or surgery.
- **Infections** in the urinary tract are usually treated with antibiotics.
- **Damage** to the urinary tract often heals on its own, but severe cases may require surgery.
- **Cancer** of the urinary tract may be treated using surgery, radiation therapy, or medications.

Remember: If you find blood in your urine, don't ignore it. See your doctor. No matter how much blood is found, the cause of the bleeding needs to be identified.

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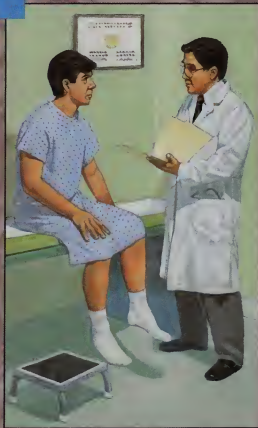
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# HEMATURIA

## Blood in the Urine



## WHAT DOES IT MEAN?

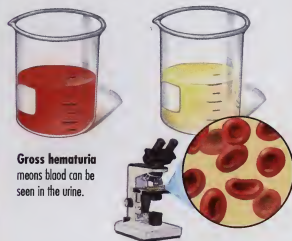
You or your doctor has seen blood in your urine, a condition called **hematuria**. You are likely to be concerned and wondering what it means. Most of the time, the cause of hematuria is not serious. However, blood in the urine should never be ignored. Your doctor can evaluate you to identify the cause of the bleeding and treat it, if necessary.

### Two Types of Hematuria

Blood in the urine may be one of two types:

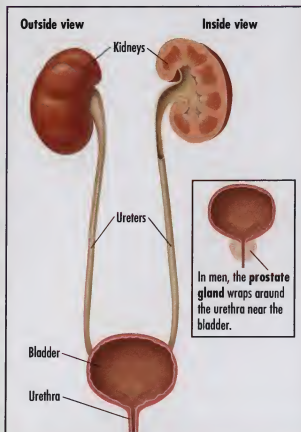
- **Gross hematuria** means that the blood can be seen by the naked eye. The urine may look pinkish, brownish, or bright red.
- **Microscopic hematuria** means that the urine is clear, but blood cells can be seen when urine is viewed under a microscope.

Both types of hematuria can have the same causes, and neither one is more serious than the other. With either type, you may or may not notice other symptoms—such as pain, pressure, or burning when you urinate.



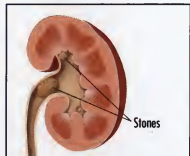
## YOUR URINARY TRACT

The urinary tract helps rid your body of liquid waste. The **kidneys** collect unneeded chemicals and water to make **urine**, which travels through the **ureters** to the **bladder**. The bladder holds urine until you're ready to release it. Then the urine passes through the **urethra** and leaves the body. A problem in any part of the urinary tract may cause blood in the urine.

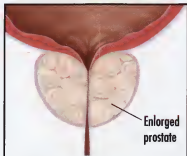


## POSSIBLE CAUSES OF HEMATURIA

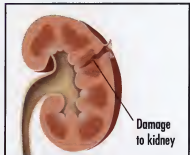
A wide range of problems can lead to blood in the urine. Some of the most common causes—such as kidney or bladder stones, enlargement of the prostate, and infection—are often easily treated. Other causes, such as cancer, are more serious. Some of the most common causes of hematuria are listed below.



**Stones** are collections of crystals that form in the urine. Stones may be found anywhere in the urinary tract, particularly in the kidneys or bladder. Stones in the urinary tract almost always cause bleeding and can sometimes cause severe pain.



**Benign prostatic hyperplasia (BPH)** is an enlargement of the prostate gland that can happen as men age. In addition to bleeding, BPH may cause problems with urination and, occasionally, pain.



**Damage** to the urinary tract may cause bleeding. Damage may be due to a blow or accident or the use of a catheter. Very strenuous exercise may sometimes irritate the urinary tract and cause bleeding.



**Cancer** may occur anywhere in the urinary tract. A tumor in the urinary tract may sometimes cause no symptoms other than bleeding.



**A urinary tract infection (UTI)**, caused by bacteria, can lead to inflammation in the bladder and urethra as well as bleeding. UTIs are often accompanied by burning, fever, pain, and the frequent need to urinate.

### Other Causes

Other causes of bleeding in the urinary tract include:

- Prostatitis (infection of the prostate gland)
  - Anticoagulant medications
  - Blockage of the urinary tract
  - Sickle cell anemia
- Often, no cause can be identified, a condition known as **idiopathic hematuria**.

## YOUR EVALUATION

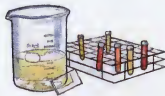
To evaluate your condition, the doctor will first confirm that blood is indeed present. Then other tests are done to pinpoint where the blood is coming from and why. Your doctor will decide which tests will best determine the cause of your hematuria. Some common tests are listed below.

### History and Physical Exam

You will probably be asked questions about your medical history. Be sure to tell your doctor about any symptoms you've noticed, any medical problems you have, and any medications you take. During the physical exam, your doctor feels your sides for tenderness and examines your genital area for redness and inflammation. Your pulse and blood pressure may also be checked.

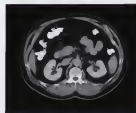
### Lab Tests

During **urinalysis** a sample of your urine is tested to confirm that blood is present, and the urine is checked for infection. A **urine culture**, which grows bacteria on a culture plate, can also show infection. During **urine cytology**, urine is examined under a microscope to look for abnormal cells, which may mean that cancer is present. **Blood tests** may also be done to diagnose prostate or kidney problems.



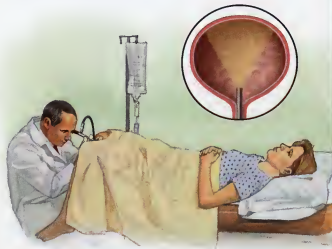
### Imaging Tests

These tests are usually done in the hospital or a radiology clinic. They can help detect stones, blockages, growths, and other problems in the urinary tract. Depending upon your evaluation and diagnosis, you may have one or more of the imaging tests discussed at right.



### Cystoscopy

**Cystoscopy** is the close visual examination of the urinary tract. Using a special telescope-like instrument called a **cystoscope**, the doctor can look for problems in your urethra and bladder (and prostate if you're a man). The procedure may be done in your doctor's office or at a hospital. First your doctor will numb your urethra, and you may be given medication to help you relax. Then the cystoscope is inserted. Sterile fluid expands the bladder and makes it easier to examine. When the procedure is finished, the cystoscope is removed.



- **Computed tomography (CT or CAT)** scan is a series of x-ray images that show a cross section of the urinary tract.
- **Ultrasound** is an image of the urinary tract created by sound waves.
- **Intravenous pyelogram (IVP)** uses contrast solution so the kidneys, ureters, bladder, and urethra will stand out on a series of x-ray images.